Materials Needed

- Copies of VELS
- Handouts
- Videotape and VCR (optional)
- Overhead Projector (optional)
- M & Ms (optional)
- Age-appropriate picture book
- Poster board and game cards
- Flip chart, tape, and markers

Goals and Objectives

As a result of this module, participants will:

Related Northern Lights Core Knowledge Areas

Understand the learning goals and definitions in the domain of Language, literacy & communication	Teaching and Learning Child Development Health and Safety
Understand the differences and connections between language, literacy & communication	Teaching and Learning
Understand the development of language, literacy & communication in the context of continuous, responsive, and consistent relationships with significant others	Child Development Teaching and Learning
Understand the process of literacy development in young children and how it may be affected by individual variations, such as being a new English language learner, or having special learning needs or disabilities	Child Development
Understand how to support young children's daily language, literacy & communication through developmentally appropriate practices	Teaching and Learning Health and Safety
Increase skills in observing and interpreting language, literacy & communication in young children	Teaching and Learning
Become familiar with professional resources and current research in the area of young children's language, literacy & communication	Professionalism and Program Organization
Increase skills and knowledge of how to explain young children's language, literacy & communication to others, especially parents, guardians, co-workers and colleagues	Professionalism and Program Organization Family and Community

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Page references to the Language, Literacy & Communication domain in the Vermont Early Learning Standards in this module are noted as: "VELS" followed by the page number. For example, VELS Pg 20. Relevant pages for this module are 10-13, 26, and 30.

Introductions and Opening Activity

- Make sure participants know one another and the instructor, including pertinent information about their work and work settings.
- Choose an opening activity from the following options:
 - ? Handout 1: Where are the Early Literacy Activities Here? (Small group)
 - ? Handout 2: First Memories (Individual/Pairs)
 - ? Handout 3: Alphabet Hunt (Small group)
 - ? Handouts 4-6: Wingding Nametags (Large Group)

Review the Standard and Domain

- The instructor should review the Language, Literacy & Communication section of the VELS, pages 10-13. Take notice of the introduction; explanation of the domain; learning goals and definitions; examples; correlation to Vermont Frameworks and Head Start outcomes; role of the adult; and the role of the environment.
- Acknowledge that there are many opportunities throughout a typical day to support children's development of language, literacy & communication, both at home and in programs. These opportunities come about through relationships with others. Language, literacy & communication can't be considered separately from the relationships a child has with adults and other children.
- Acknowledge that participants already know a lot about supporting a child's development in language, literacy & communication as a lead in to the next learning activity.
- Review the learning goals one by one. Ask participants to recall the events of their day with children, and as you are speaking, use their examples to illustrate each learning goal.
- Review what language, literacy & communication looks like, feels like, and sounds like in early childhood settings. Use *Handouts 7-10: Give One, Get One.*

The Development of Language, Literacy & Communication

Instructors should refer to the introduction in VELS, Pg.10 for a concise background to Language, Literacy & Communication and the following key points to develop a mini-lecture on the topic of language, literacy & communication:

Language, literacy & communication can be broken apart and treated as separate and distinct topics. The VELS chooses to present them together to emphasize that expressing and understanding language, in all its various forms, is primarily a way to

communicate thoughts, feelings and ideas with others. Literacy usually refers to communication through text, involving reading, writing and understanding.

Some language theorists propose that humans are predisposed to learn language because of innate abilities, and this is what sets us apart from plants and animals. Others point out that language development is stimulated and enriched by contact with our environment and others who use language. Most language theorists now believe that it is a combination of innate predispositions and a language-rich environment that helps humans acquire language. (Refer to Chomsky, N., & M. Ronat. On language: Chomsky's classic works language and responsibility and reflections on language. New York: The New Press, 1998 for more in-depth background material.)

- Literacy learning begins at birth. Recent research has corrected myths we
 previously held about the ideal age to expose children to books or to teach
 children to read. The more experiences children have with oral language, books
 and communication before they enter formal school, the better equipped they
 are to learn to read.
- Oral language is the foundation of children's language and literacy development. Oral language consists of a varied vocabulary, extended discourse (conversations), and stimulating environments at home and school. (See Dickinson, D., and P. Tabors, eds. <u>Beginning literacy with language: Young children learning at home and school</u>. Baltimore: Paul H. Brookes Publishing Co., 2001)
- Language development consists of speaking and communicating (expressive language) and listening and understanding (receptive language).

There are predictable stages in the sequence of children's expressive language development. Generally, babies coo, and then make consonant sounds, then string those together to babble before producing a first word. Later they put two words together, and still later, construct sentences. (For more information, see "Language and Communication Development: Widely held expectations", in Bredekamp, S., & C. Copple, eds. <u>Developmentally appropriate practice in early childhood programs, revised edition.</u> Washington, DC: NAEYC, 1997. The sequence may be delayed for children who are learning English as their second language, or for children with special needs.

- The quantity of language children experience makes a difference in their vocabulary development. The more words a they hear, the bigger their vocabulary. Children from higher socioeconomic homes hear roughly three times the amount of words than do children from homes in poverty. (For more information see the article entitled "The Early Catastrophe on Page 87.) Children who are exposed to a rich and varied vocabulary through meaningful conversations learn the words they will need to understand later, when they begin to read.
- Reading books with young children is a major part of children's emergent literacy. Shared-book reading involves not only reading the words and showing the pictures; it includes having discussions about the story, characters, and pictures, and asking and answering related questions. Shared-book reading is also called dialogic reading. During dialogic reading, children have opportunities for vocabulary development and knowledge acquisition.

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 Phonological awareness is the awareness that words are made up of sounds – beginning sounds, ending sounds, rhymes, and syllables or word parts.
 Phonemic awareness is a sub-category of phonological awareness and refers to individual letter sounds. (For more information see the article entitled "Sounds of Language" on Page 83.)

What Do Language, Literacy & Communication Look Like?

What do Language, literacy & communication look like and how might teachers observe it in young children? Choose from among the following learning activities:

- Select a short video clip of children playing. Ask participants to identify elements of language, literacy & communication that they observe. Instruct them to use the language of the VELS as much as possible. For each example observed, link it back to the relevant learning goal(s).
- Handouts 11-12: Language Literacy and Communication Board Game.
- Handout 13: Stages of Communication.

Reflecting on Language, Literacy & Communication

Independent writing activity question-choose from among the following:

- Select a thought or concept from today's workshop that has you thinking about something you haven't considered before. What do you want to know more about?
- Fill in the blank: My strength as a teacher of language, literacy & communication is _______.
- Select a concept presented today that you don't agree with and explain why.

The instructor can decide whether to ask participants to share their reflections or keep them private.

The Adult's Role in Supporting this Domain

Shared book reading can be a powerful activity to promote early literacy, language development and communication skills. Adults develop their unique book-reading style, but certain elements of reading aloud promote children's emergent literacy skills more than others. Use one or both of these activities to explore the adult's role.

- Handout 14: Model Read-Aloud
- Handout 15: Reading Picture Books to Young Children

The Role of the Environment in Supporting this Domain

Home and classroom environments can be a great support to children's developing language, literacy & communication. Are books available in an inviting area? Are writing materials easily accessible for both creative and communication purposes? Is print used to convey ideas and messages throughout the indoor and outdoor spaces?

Remind the participants that environment is defined as the combination of room arrangement, selection and display of materials and equipment, learning centers, a predictable schedule, caregiving routines that take place both inside the classroom or home and outdoors as well.

Activity: What Are the Children Doing?

- 1. Use the Sandra Stone cartoon found at the end of this module.
- 2. In groups of three, have participants note 3-5 changes they could make to the environment in each learning area contained in the cartoon to promote children's language, literacy & communication development.
- 3. Make sure they address more than one aspect of the environment mentioned above.
 - Use Handout 16: A Environmental Scan for Literacy Materials.

Reflecting On the Role of the Adult and the Environment

Research shows that a language and print-rich environment is a critical element of what young children need to build a foundation for success as readers. However, what is even more important are interactions with adults who speak with children frequently, have extended conversations and use a varied vocabulary. Here is an opportunity to reflect through a child's eyes on the opportunities your program provides to build this solid foundation for language, literacy & communication.

• Use Handout 17: Though a Child's Eyes.

Putting It All Together

Choose among the following options for this exercise:

- What's in Your Portfolio?: Imagine you were creating a language, literacy & communication portfolio to take with you on an interview for Literacy Teacher of the Year. The interview panel is made up of sixth graders who were in your preschool class when they were three and four years old. You use your portfolio to demonstrate how you supported their development in language, literacy & communication. Describe the following pretend pages: all-time favorite books; my philosophy of early literacy; top five best activities that promote language, literacy & communication. (Individual)
- Language, Literacy & Communication Gazette: A reporter is interviewing you for an article on the importance of language, literacy & communication in the preschool years. What are the top five points you want to make sure she understands before she writes this article? (Small group)
- **Advice to Parents:** A parent asks you what he can do to help his child learn to read. Create an answer for this parent that includes interactions, activities and materials that will set the stage for reading success. (Small group)
- Language, Literacy & Communications Mini-grant: You can apply for a \$400 grant to purchase materials to support your language, literacy & communication curriculum. What would you buy and why? (Individual)

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Conclusion

Instructor's final key points should include the following points to summarize the material in this module.

- Adult-child interactions are key to providing a solid foundation of success in language, literacy & communication. Relationships are key because without others to communicate with, language is without a purpose.
- The reason we concentrate on children's language, literacy & communication is to help them develop a joy and love of reading, not just to teach the skills of literacy.
- Early experiences with language, literacy & communication are important. Home environments and early childhood programs offer many opportunities to provide experiences that build a love of words and communication.

Handout 1: What are the Early Literacy Opportunities Here?

Materials

None

Room Arrangement

Allows small groups to work together

Time

30 minutes

Goal

Participants recognize opportunities in the daily schedule to support early literacy that are not just during formal teacher-directed activities. Participants become more familiar with the language, literacy & communication domain of the VELS.

Instructor

1. Read the following vignette to the whole group: (Make copies of this vignette from the text on the next page.)

"A family child care provider is greeting families by the front door in the morning. A mother arrives with her four year old son. The mother tells the educator that her son was telling her a story in the car about a yellow school bus that the child had seen with the educator on a field trip the previous day. Another child, age three, sits on the bench and starts taking off her boots. A toddler starts pulling at his hat and crying."

- 2. Divide participants into small groups of three to four people.
- 3. Reread the vignette above and this time look for the possibilities and opportunities for the family child care provider to make the most of language, literacy & communication. What is happening in this vignette that might be a stepping-stone to language, literacy & communication learning?
- 4. The instructor should help participants in creating a comprehensive list of the ways the teacher could use the possibilities in this short scene to make the most of language, literacy & communication. How could these be used at other times of the day like mealtimes, toileting, outside play, dressing and transitions?

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Early Literacy Opportunities Vignette

A family child care provider is greeting families by the front door in the morning. A mother arrives with her four year old son. The mother tells the educator that her son was telling her a story in the car about a yellow school bus that the child had seen with the educator on a field trip the previous day. Another child, age three, sits on the bench and starts taking off her boots. A toddler starts pulling at his hat and crying.

Handout 2: First Memories

Materials

Multi-colored M & M's; overhead projector with transparency OR flip chart paper with the instructions below.

Room Arrangement

Any arrangement will work.

Time

Approximately two minutes per person.

Goal

To have all participants recall something about their own life experience related to learning language, literacy & communication.

Instructor

The instructor passes around a container with M&M candies, and tells participants to take one in their favorite color. When everyone has a candy, the instructor says:

"Look at the color of your M&M. Here are some questions to answer depending on the color of your candy."

If you have... Recall an experience in your past...

Red	when you tried to communicate something to someone but couldn't
Green	when you were read to as a child
Yellow	when you told a story, or someone told you a story
Brown	when you learned to write, or first expressed yourself in writing
Orange	when you first learned the alphabet
Blue	with a special book that you remember for a particular reason

Participants can reflect for a minute and then write their response on a piece of paper. Have participants share their responses with a partner. Organize participants into one large group after each partner has had an opportunity to share; and ask if anyone would like to share with the group.



The purpose of this is to put everyone in a learner's frame of mind. It is also to generate upbeat memories about language, literacy & communication.

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Handout 3: Alphabet Hunt

Materials

None

Room Arrangement

Allows people to move around and into small groups.

Time

15 minutes

Goal

Participants learn the importance of communication and teamwork.

Instructor

1. Make sure everyone can see and hear you. Tell participants:

"We are going to have an alphabet hunt. It is very important that you listen to and follow the directions. On your own, without talking to anyone else, I would like you to make a list of things that are either *in this room or on your person* that start with each letter of the alphabet. Don't start yet. Does everyone understand the directions? Okay, then begin."

2. After one minute, stop the group and divide them into pairs. Now, tell participants:

"Now, without talking, I'd like you and a partner to continue building your alphabet lists."

3. After one minute, stop the group again. Now, say:

"Now you can talk, but only with your partners. Continue building your list for another minute."

- 4. Allow the groups to work for about one more minute and then stop them. Tell them that they can go around to other groups and finish off their lists by working as a large group.
- 5. When the groups have finished their lists, have a discussion about the activity. Some questions you might ask: What was hardest about this activity? What was easiest? Why? Was it harder to work on your own or talking with a partner? Why? How did you and your partner communicate when you couldn't talk? How did you remember what was on your lists?

Handout 4: Wingding Name Tags

Materials

Participant's names typed on labels in the Wingding font on a computer. (Make sure that you have selected the Wingding font before typing first names only with the CAPS LOCK key on.)

Decoding Strategies chart

Post-its (optional)

Copy of Wingding alphabet (*Handout 5*)

Wingding answer sheet-list of names and Wingding translation (see examples)

Room Arrangement

Place nametags on large table prior to arrival of participants.

Time

15-20 minutes

Goal

To simulate the child's early experiences with print and decoding.

Instructor

1. The instructor should state the following at the beginning of this activity.

"Welcome to our presentation today. In an attempt to simulate a "first day of school" experience for many children, I want you to go find your nametag and then sit down. By the way, your name is written in Wingding."

- 2. Participants will be reluctant and request further directions/help etc.
- 3. The instructor can give this additional information:

"Remember that I stated that we are simulating how a child might feel or approach this task. What can you do right now to help you determine which nametag is yours?"

- 4. Participants will start to get the idea that they need to talk with each other, look for patterns etc. When they ask for help, direct them to their peers to problem solve together.
- 5. Once everyone has a nametag, ask folks to turn and talk to a partner about the strategies that they used to figure out the name.
- 6. Participants then write a strategy on a "post-it". One representative from the pair is asked to place the post-it on the Decoding Strategies chart. The participant reads the strategy aloud as the post-it is placed on the chart. (An alternative to the post it idea is simply to ask folks to share and the instructor records responses on chart).

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- 7. The instructor concludes by summarizing some of the strategies. Typically some strategies are:
 - ? Looking for letter patterns
 - ? Counting letters
 - ? Comparing beginning and ending letters with peers
 - ? Waiting and watching others
- 8. Conclude the activity by asking participants to reflect on how this activity made them feel? How does this compare to early experiences that young children have with print?

Handout 5: Wingding Alphabet

₽	Α	**	N
	В	P	0
	C	R	P
P	D	→	Q
F	Ε	≎	R
	F	•	S
and)	G	*	T
(gir)	Н	令	U
W.		t	V
\odot	J	†	W
<u> </u>	K	×	X
8	L	**	Y
€ **	M	C*	Z

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Handout 6: Wingding Alphabet Nametag Samples

CATHY	
REBECCA	A TO B TO B B
KIM	
CHERI	
CONNIE	
DEB	
JAN	
SANDY	
SHERRY	
DEBORA	G TO S TO S
ELLEN	₽889₽
CAROL	
LORI	
DONNA	9 P 3 3 8
BETH	

Handout 7: Give One-Get One Instructions

Materials

Give One-Get One handouts (Handouts 8, 9, & 10)

Room Arrangement

Any seating arrangement with room to stand up and mingle.

Time

15 minutes

Goal

To have all participants tap into prior literacy knowledge; collaborate with peers compare/contrast to VELS document.

Instructor

- 1. The instructor passes out the directions (*Handout 8: Give One-Get One, Part B*) and reviews them with participants. *Handouts 9 & 10* are variations on this activity.
- 2. Give participants 5 minutes to walk around and share answers. Return to seats.
- 3. Open the VELS and compare/contrast the results with the examples on pages 10-13.
- 4. Give participants an opportunity to talk in pairs and answer the question "What did you notice about your results and the literacy examples in the VELS?".
- 5. Draw the group back together after each partner has had an opportunity to share; and ask if anyone would like to share with the group.

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Handout 8: Give One-Get One, Part B

- 1. Using 3 boxes below, jot down 3 examples of what language, literacy & communication may look like, feel like and/or sound like in Pre-k setting.
- 2. When you have 3 ideas written, stand up to show you're ready. Look for others who are ready. Give one of your ideas to someone else and get one from him or her.
- 3. Go to 6 different people and get 6 different ideas for the 6 remaining boxes. When you are finished, sit down and get ready to share one with the class.

Handout 9: Give One-Get One, Part C

- 1. Using three boxes below, jot down 3 examples of what language, literacy & communication may look like, feel like and/or sound like in pre-k setting.
- 2. When you have three ideas written, stand up to show you're ready. Look for others who are ready. Give one of your ideas to someone else and get one from him or her.
- 3. You will have five minutes to collect ideas from others. When the time is up, sit down and get ready to share one with the class.

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Handout 10: Give One-Get One, Part D

- 1. Using three boxes below, jot down 3 examples of what language, literacy & communication may look like, feel like and/or sound like in pre-k setting.
- 2. When you have three ideas written, stand up to show you're ready. Look for others who are ready. Give one of your ideas to someone else and get one from him or her.
- 3. Go to five different people and get 5 different ideas for the remaining boxes. When you are finished, sit down and get ready to share one with the class.

Language	Literacy	Communication

Handout 11: Language, Literacy & Communication Board Game

Materials

Game boards need to be assembled prior to workshop

Copies of the VELS

Large poster board in several colors to make one game board per four students Glue

See Handout 12: Language, Literacy & Communication Board Game Cards for templates of Language, Literacy & Communication Standards headings and sample cards to cut up for classroom scenarios.



To make the game pieces, follow these directions:

- 1. Cut up the template.
- 2. Glue headings onto poster board.
- 3. Photocopy scenarios onto cardstock and cut up into cards. (It helps to color code sets of cards to stay organized during clean up.)
- 4. Make a full set of heading and scenario cards for each group of four.

Room Arrangement

Participants can set game boards on tables or on the floor around the room.

Time

15 minutes minimum

Goal

To have all participants relate classroom literacy scenarios to VELS standards and examples.

Instructor

- 1. Explain to participants that you want them to get some hands on experience with the Language, Literacy & Communication standards and examples. In order to do this they will play a game with a small group.
- 2. Using the VELS, work together as a group to determine which scenario goes with which standard. (Most groups comment that there is a lot of overlapping)
- 3. Place the scenario card under the correct standard heading. When groups are finished they can walk around to notice the game boards of other groups.
- 4. Come back together as a group. Ask, "What did you notice?" "Was this helpful?" "What questions do you have about the Language, Literacy & Communication standards?" "Could you relate the scenarios to your literacy environment?"

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Handout 12: Language, Literacy & Communication Board Game Cards

Learning Goal 1 - Play

Children engage in play as a means to develop their receptive and expressive language skills

Tim is hiding under a bench while Jennifer, Harold, Samara are taking turns walking over it shouting "TRIP, TRAP!" Annie put up a sign in the block area to label her structure.

Learning Goal 2 - Listening and Understanding:

Children develop skills in listening and in understanding language.

Children line up at the sink, wash their hands get their snack from their cubby and sit down for snack.

Annie is singing a lullaby to her baby doll as she feeds her a bottle.

Justin smiles at Laura as she shares her story about her birthday party.

Learning Goal 3 - Speaking and Communicating

Children will use verbal and non-verbal language to express and to communicate information.

Emily greets the principal when she arrives at classroom door.

Billy pushes Andy while waiting for a drink of water. Andy tells Billy to stop because it hurts to be pushed.

Learning Goal 4 - Vocabulary

Children will acquire and use new words to increase their understanding and express ideas.

You've been singing 5 green and speckled frogs every day this week. During center time, Allie tells you that her shirt got "speckled" while she was painting.

Jose is excited to tell you that he saw a green chrysalis with a gold ring around the top on some milkweed on the playground.

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Learning Goal 5 - Early Writing

Children demonstrate an interest in and ability to use symbols to represent words and ideas.

Ali is in the housekeeping area. She is on the telephone and scribbles on a pad as she "talks".

Sam is walking around with a clipboard and marker. He is inviting classmates to join his club by signing their name.

Learning Goal 6 - Early Reading

A. Phonemic and Phonological Awareness: Learning that the language is comprised of distinct sounds and the combination of these sounds; discriminating sound and sound patterns.

At snack time the children are getting silly by making up rhyming words to go with the food. Alan says "apple/ tapple/sapple"

Sean says "juice/poose/ moose"!

After singing Miss Mary Mack, Shayna says, "hey that song's just like Jack".

Learning Goal 6 - Early Reading

B. Book Knowledge and Appreciation: Understanding and appreciating that books and other forms of print have a purpose.

Learning Goal 6 - Early Reading

C. Print Awareness and Concepts: Recognizing the association between spoken and written words by following print as it is read aloud.

Haley notices that her name begins the same way as Hunter.

Jack brings you a marker and paper and says, "make us an EXIT sign".

Learning Goal 6 - Early Reading

D. Alphabet Knowledge: Recognizing that symbols are associated with letters of the alphabet and that they form words.

Sara and Emily are sitting on the floor with the big book, Mrs. Washy Washy. They are pointing to the bottom of the page and laughing as they "read" the story of the animals jumping in the mud. They recite "wishy-washy, wishy-washy" when the animals are in the tub.

At snack time, Jack reads the word "Cheerios" off his small box of cereal. Mary reads "McDonalds" on the bag that her mom used for snack.

While playing in the rice table, David reads the word, "COOL WHIP" on the side of the plastic container. Colin says, "My name looks like that word too. Brian is in the dramatic play area that is set up like a restaurant. He is reading the menu and gives his order to Nora. She scribbles on a pad.

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Handout 13: Stages of Communication – Speaking

Materials

Strips of paper or note cards with the individual stages of language listed separately (See next page for list of stages).

Room Arrangement

Participants can work first in pairs or small groups.

Time

15 minutes minimum

Goal

To have all participants identify and order the typical progression of verbal language in young children.

Instructor

1. Once partners are seated near one another, the instructor says:

"There is a universal way in which children develop their language skills. On these separate strips of paper are listed the different stages. Place them in order from first stage to last. Then, if you want, try to think about approximate ages when these might occur. I'll give you about 5-8 minutes."

- 2. After time has lapsed, the instructor asks if there is a group that would like to share their order. Once this is done correctly, ask the entire group if they would like to guess about when these might appear in children's development.
- 3. Key:

Crying (0-1 month)

Cooing (1-3 months)

Babbling (6 months)

Holophrases (First Words/ One word sentences) (10-20 months)

Two Word Sentences (18 months)

4 – 5 Word Sentences (30-36 months)

Over-Regularization (go-ed, throw-ed) (36-48 months)

Adult-like Language (5 years)

4. Possible follow-up discussion topics may include:

Individual variation in development

Ways parents and professionals can support development

Research

Determining when you should become concerned about possibly difficulties

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Labels for paper strips or note cards (copy this page and cut out individual labels):

Crying Cooing **Babbling** Holophrases (First Words/ One Word Sentences) **Two Word Sentences**

4 – 5 Word Sentences

Over-Regularization (go-ed, throw-ed)

Adult-Like Language

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Handout 14: A Model Read-Aloud

Materials

Short but age-appropriate picture book for three and four year olds Handout 15: Reading Picture Books to Children for each participant

Room Arrangement

Instructor positions her/himself so that everyone can hear see the book.

Time

Approximately 30 minutes

Goal

To identify the elements of an effective read aloud; to compare with an ineffective readaloud

Instructor

- 1. Make sure everyone can see and hear you. Tell the participants:
 - "I am going to read you a book I might read to a group of preschoolers. I need some volunteers to play the role of children listening to this story, who will act like children, but who will not disrupt the flow of this activity, (even though some children you know might)."
- 2. The participants observing this scenario take notes on the language, literacy & communication they see in the read-aloud, using the language of the VELS as much as possible.
- 3. Based on the scenario, have participants complete the Reading Picture Books to Children checklist in pairs. The instructor can lead a group discussion on what they saw, and the results of the checklist.



An optional approach is to first do an ineffective read-aloud, exaggerating the wrong way to read books to children. Skip Step 2. Have participants fill out the checklist. Then repeat the reading, this time presenting it as a model of how books should be read to children. Have participants fill out the checklist again.

Instructors should make sure they are familiar with the checklist before attempting this activity. Instructors should emphasize *intentionality*. Having a purpose in reading to children, and knowing how reading aloud can benefit children's growing language, literacy & communication skills makes this an effective and worthwhile activity. Pulling a random book off the shelf or using reading as simply a classroom management technique is not recommended.

The instructor should not try to present a perfect read-aloud. Make sure there is an opportunity for participants to identify elements they did not observe happening, but would want to observe in a really good example of reading a book to children.

Handout 15: Reading Picture Books to Young Children Checklist

Professional Development Assessment

In the Critical Task Area: Reading Picture Books to Young Children

× Quarterly observations are encouraged in order to demonstrate competence in the multiple tasks listed below. The behaviors in Selecting the Book, Setting the Stage, Reading the Book, and After Reading the Book should be demonstrated every time a book is read aloud to young children. At any given reading, at least some other literacy and language techniques in Section 5 ought to be demonstrated.

Early Childhood Professionals being observed should be rated at one of three levels:

1. Beginning, 2. Improving, or 3. Mastering. The observer may wish to expand on their rating with a comment or using the space at the end of this form. The enclosed Longitudinal Checklist can be used for more comprehensive, ongoing observation, and selfassessment.



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Observation #:	Date:	www.workforcedev.org/ch
Observer (full name and title)):	
Teacher being observed (full	name and title):	
Ages of children in the group		nber of children in the group:
Time period of observation:		
Total number of minugroup?:	tes: Is this th	e first time reading this book to this
Title of book read duri	ng observation:	

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I. Selecting the Book

	Criteria being observed	Comments
a.	Book is reflective of racial, ethnic, language, socio-economic, ability, gender, age, religious or geographic diversity. <i>CDA training area 3.</i>	
b.	Book is age appropriate. CDA training area 8.	

II. Setting the Stage

	Criteria being observed	Comments
a.	The reader assesses children's prior knowledge by asking open-ended questions about the book's topic. <i>CDA training area 2.</i>	
b.	The reader asks open-ended questions about the book's cover help to introduce the book. <i>CDA training area 2.</i>	
c.	The reader connects the book to other books, children's experiences and/or to current classroom study topics. <i>CDA training area 2 or 3.</i>	
d.	The reader introduces and explains any unfamiliar vocabulary from the book. <i>CDA training area 2.</i>	

III. Reading the Book

	Criteria being observed	Comments
a.	The reader is familiar with the text, fluent in the vocabulary and usage. <i>CDA training area</i> 3.	
b.	Reads in a lively and engaging manner. CDA training area 3.	
c.	All children are given adequate time to look at each illustration. <i>CDA training area 8.</i>	
d.	The reader reflects the emotion of the story with facial, vocal and body language. <i>CDA training area 3.</i>	
e.	The reader shows delight in reading aloud. <i>CDA training area 3.</i>	
f.	The reader mentions author and illustrator by name. <i>CDA training area 2.</i>	

	Criteria being observed	Comments
g.	The reader does not disrupt narrative flow with excessive questions or information (this is critically important in the first reading of a book). <i>CDA training area 2.</i>	

IV. After Reading the Book

	Criteria being observed	Comments
a.	The reader asks open-ended questions in an engaging way to increase comprehension. <i>CDA training area 2.</i>	
b.	The reader reinforces connections between and among the book's content and any materials, activities, interest areas, and ongoing classroom projects. <i>CDA training area</i> 2	
c.	The reader shows children where the book will be kept for future reference. <i>CDA training area 8.</i>	
d.	Children are encouraged to read independently. CDA training area 8.	
e.	Children are encouraged to relate the events or characters in the book to their own lives. <i>CDA training area 3.</i>	

V. Other Literacy and Language Techniques

The following behaviors may be evident some of the time when a book is read aloud to a group. These behaviors are intended to enhance the read-aloud experience, stimulate conversation and facilitate learning. Four or more of these techniques should be present during a read-aloud session.

	Criteria observed	Comments
a.	The reader asks open-ended questions about the title page, half-title page and endpapers. <i>CDA training area 2.</i>	
b.	The reader provides information about the artwork and technique. <i>CDA training area 2.</i>	
c.	Children are encouraged to discuss the characters. <i>CDA training area 2.</i>	
d.	The reader emphasizes rhyming language and gives cues to help children notice rhymes, alliteration and assonance. CDA training area 3.	

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	Criteria observed	Comments
e.	Children are encouraged to participate in any repetitive language. CDA training area 8.	
f.	The reader provides opportunities for children to predict what will happen next. <i>CDA training area 2.</i>	
g.	Children are encouraged to interpret symbols such as signs, images, or drawings. <i>CDA training area 2.</i>	
h.	The reader shows children that print runs from left to right. <i>CDA training area 2.</i>	
i.	Children are encouraged to recognize or identify individual letters. CDA training area 2.	
j.	Children are encouraged to recognize upper and lower case letters. <i>CDA training area 2.</i>	
k.	Children are encouraged to interpret facial expressions and body language of characters. <i>CDA training area 3</i> .	
l.	Children are encouraged to compare or contrast this book to other books by either the same author or illustrator. CDA training area 2.	
m.	Children are introduced to poems, songs and finger plays that are connected to the story. CDA training area 8.	
n.	Children are given opportunities to recall the sequence of events in the story. CDA training area 2.	
0.	Book choice reflects an opportunity to build vocabulary. <i>CDA training area 2.</i>	
p.	Children are encouraged to borrow this book to share with their families. CDA training area 4.	

Additional Comments

Reading Picture Books to Young Children-Longitudinal Checklist

Early Childhood Professionals being observed should be rated at one of three levels: 1. Taight a comment using the space at the end of this form.

The observers may with a comment using the space at the end of this form.

The observers may with a comment using the space at the end of this form. Beginning, 2. Improving, or 3. Mastering. The observers may wish to expand on their

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5							
g	Criter	ia	Obsei	vation #	Observation #	Observation #	Observation #
<u> </u>							
Meterialatek Gieia Caratio	k A Baxtion	Charatio	/ Charation/				
a b	b.						
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II. Setting the Stage

Criteria	Observation #	Observation #	Observation #	Observation #
a.				
b.				

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V. Other Literacy and Language Techniques

Criteria	Observation #	Observation #	Observation #	Observation #
a.				
b.				
c.				
d.				
e.				
f.				
g.				
h.				
i.				
j.				
k.				
1.				
m.				
n.				
0.				
p.				

Additional Comments

Handout 16: Environmental Scan for Literacy Materials

An Environmental Scan for Literacy Materials and Richness of Setups and Areas

	Pr	esent	Chalk	Chalk Board Signs	Pencils, Paper, etc.	Books	Labels	Charts	Print	Children's Print	Other (Note)
	Yes	No	Board						Props		
Dramatic Play											
Manipulatives/Puzzles											
Book Area											
Blocks				- .			-				
Construction	-	_									
Sand/Water/Rice											
Science	-		_	-	 						
Writing Area	-		_	-	_						
Painting/Art					_						
Table Area(s) & or Projects	-		_		-					-	
	-		_	-	_						
	-				_						
Meeting			_								
Quiet Place			_	-	-						
Large Motor				-							
Snack				-							
General		_		-	-						
	-	_	_								

From: Goldhaber, Lipson, Sortino & Daniels. Books in the Sandbox? Markers in the Block? ..., Childhood Education, 1996/97: 88-91.

Handout 17: Through a Child's Eyes

Materials

Through a Child's Eyes handout

Room Arrangement

Any space

Time

5-10 minutes

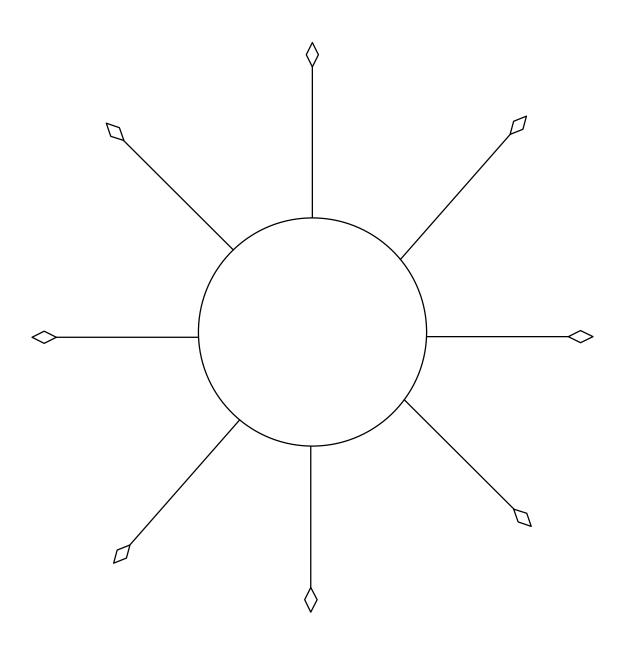
Goal

To see, from a child's point of view, the ways participants can use themselves and their classroom or home environments to strengthen the support given to language, literacy & communication.

Instructor

- 1. Ask participants to think about two children they know; one who stands out with strong language, literacy & communication abilities, and one whose are not as strong.
- 2. Think about your program. Looking through the eyes of these two children, what do they need most from you as a teacher, and your classroom environment to demonstrate examples from VELS Language, literacy & communication?
- 3. Using the diagram on the next page, write one child's name in the center of the sun. Write something you will do (adult role) and something you can change in your home or classroom (role of the environment) to support that child in language, literacy & communication.

Module 3: Language, Literacy & Communication



Language, Literacy & Communication Professional Resources

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Donovan, C., E.J. Milewicz, & L.B. Smolkin. "Nurturing young children's interest in reading and writing for multiple purposes." Young Children 58 (2), 2003: 30-36.

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Hart, B., and T. Risley. <u>Meaningful differences in the everyday experience of young American children</u>. Brookes Publishing, 1995.

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Jalonko, M.R. <u>Young children and picture books</u>, 2nd edition. Washington, DC: NAEYC, 2004.

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Roskos, K.A., J.F. Christie & D.J. Richgels. The essentials of early literacy instruction. *Young Children* 58 (2), 2003: 52-59.

Schikedanz, J.A., and R.M. Casberge. <u>Writing in preschool: Learning to orchestrate meaning and marks.</u> Newark, DE: International Reading Association, 2004.

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U.S. Department of Health and Human Services. <u>National Head Start S.T.E.P.</u> <u>teacher's manual.</u> Houston: C.I.R.C.L.E, University of Texas Health Science Center, 2002.

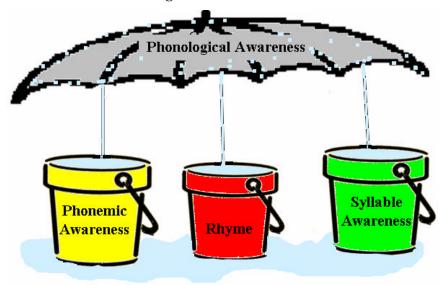
Supplemental Material

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The Sounds of Language

One of the ways that children develop early reading skills is through developing an understanding of the sounds of spoken language separately from the meaning. This awareness begins to develop at birth with crying and can be seen as children learn to talk and form sounds into words. It continues through the preschool years as children learn about rhyme and alliteration (beginning sounds of words). Children's understanding of sounds deepens as they begin to discriminate and order the sounds they hear. These skills continue to develop and strengthen through their school years as children learn to read. Adults can help to support this development through shared reading, singing songs, games, and talking with young children. Here are some of the things that children learn about the sounds of spoken language and that help to form a basis for their reading.



Phonological Awareness – the understanding that spoken words are made up of sounds and that this structure is separate from the meaning. The term includes the understanding of rhyme, phonemic awareness, and syllable awareness. It also includes knowing that words are contained in sentences, rhyming units exist within words, and that words begin and end with sounds.

Children learn that language consists of sounds long before they learn to read or learn that letters stand for certain sounds. Learning to form the sounds themselves is one of the earliest skills children develop and is what enables them to talk and form words. Children begin to play with the sounds in language at a young age, beginning to enjoy rhymes and tongue twisters in songs and books. This shows a developing phonological awareness. Phonological awareness eventually helps children learn to read and write because they can understand that letters stand for sounds and that the sounds can be combined in different ways to form words and sentences.

Rhyme – the understanding that the ending sounds of spoken words can sound the same (i.e. /note/ and /boat/ or /cat/ and /hat/).

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Awareness of rhyme often occurs around age three or four. Understanding of rhyme develops from the early recognition and enjoyment of rhyme when it occurs (i.e. repeating "Matt's hat" over and over again after having heard it in a story). Children next begin to complete rhymes ("hat" "b__"). Finally, children are able to generate rhymes on their own. As children get older, understanding of rhyme can help them read and write unfamiliar words.

Phoneme – an individual sound within a spoken word. Phonemes are combined to form syllables and words. Phonemes may be represented by more than one letter in written language (i.e. /n/ is a phoneme, but so is /ch/ and /chin/ has three phonemes – or sounds – in it).

As children learn about letters, they begin to apply what they know about phonemes (their phonemic awareness) to their understanding of letters as symbols for the phonemes.

Phonemic Awareness – the understanding that a spoken word is made up of a series of separate sounds (phonemes). Phonemic awareness consists of a number of separate skills, many of which are developed after the preschool years:

- Substitution changing /mat/ to /map/
- Discriminating knowing that /mat/ begins with an /m/ sound
- Isolating knowing the last sound in /mat/ is a /t/
- Blending being able to combine the sounds /m/ and /at/ to get /mat/
- Segmenting being able to break out the sounds /m/, /a/, and /t/ from the word /mat/
- Deleting taking the /m/ sound off of /mat/ to form /at/
- Manipulating being able to rearrange the sounds in /stop/ to form /pots/

Children initially hear the beginning sounds of words (the /s/ in /snake/), and then hear the final and middle sounds. Children are often experimenting with the initial sounds in words through alliteration and tongue twisters during the preschool years. As children learn about letters, they build their understanding of how letters representing phonemes can be combined to form words and syllables.

Syllable Awareness – the awareness that spoken words can be broken into parts (known as syllables). Some words are a single syllable and some words contain multiple syllables. Not all syllables carry meaning by themselves. Syllable awareness is also broken into several skills:

- Counting being able to count or clap out syllables in spoken words
- Blending being able to combine syllables to form words (i.e. /drive/ and /way/ form /driveway/)
- Segmenting being able to break a word into its syllables (i.e. /driveway/becomes /drive/ and /way/)
- Deleting being able to delete a syllable from a word (i.e. /driveway/ becomes /drive/)

Recognizing and clapping out syllables is a skill that some preschool-aged children are able to master. This awareness often helps children begin to build an understanding of the way that sounds are ordered in individual words.

The Early Catastrophe

The 30 Million Word Gap by Age 3 Betty Hart and Todd R. Risley

During the 1960's War on Poverty, we were among the many researchers, psychologists, and educators who brought our knowledge of child development to the front line in an optimistic effort to intervene early to forestall the terrible effects that poverty was having on some children's academic growth. We were also among the many who saw that our results, however promising at the start, washed out fairly early and fairly completely as children aged.

In one planned intervention in Kansas City, Kans., we used our experience with clinical language intervention to design a half-day program for the Turner House Preschool, located in the impoverished Juniper Gardens area of the city. Most interventions of the time used a variety of methods and then measured results with IQ tests, but ours focused on building the everyday language the children were using, then evaluating the growth of that language. In addition, our study included not just poor children from Turner House, but also a group of University of Kansas professors' children against whom we could measure the Turner House children's progress.

All the children in the program eagerly engaged with the wide variety of new materials and language-intensive activities introduced in the preschool. The spontaneous speech data we collected showed a spurt of new vocabulary words added to the dictionaries of all the children and an abrupt acceleration in their cumulative vocabulary growth curves. But just as in other early intervention programs, the increases were temporary.

We found we could easily increase the size of the children's vocabularies by teaching them new words. But we could not accelerate the rate of vocabulary growth so that it would continue beyond direct teaching; we could not change the developmental trajectory. However many new words we taught the children in the preschool, it was clear that a year later, when the children were in kindergarten, the effects of the boost in vocabulary resources would have washed out. The children's developmental trajectories of vocabulary growth would continue to point to vocabulary sizes in the future that were increasingly discrepant from those of the professors' children. We saw increasing disparity between the extremes--the fast vocabulary growth of the professors' children and the slow vocabulary growth of the Turner House children. The gap seemed to foreshadow the findings from other studies that in high school many children from families in poverty lack the vocabulary used in advanced textbooks.

Rather than concede to the unmalleable forces of heredity, we decided that we would undertake research that would allow us to understand the disparate developmental trajectories we saw. We realized that if we were to understand how and when differences in developmental trajectories began, we needed to see what was happening to children at home at the very beginning of their vocabulary growth.

We undertook 2 $\frac{1}{2}$ years of observing 42 families for an hour each month to learn about what typically went on in homes with 1- and 2-year-old children learning to talk. The data showed us that ordinary families differ immensely in the amount of experience with language and interaction they regularly provide their children and that differences in children's experience are strongly linked to children's language accomplishments at age 3. Our goal in the longitudinal study was to discover what

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was happening in children's early experience that could account for the intractable difference in rates of vocabulary growth we saw among 4-year-olds.

Methodology

Our ambition was to record "everything" that went on in children's homes--everything that was done by the children, to them, and around them. Because we were committed to undertaking the labor involved in observing, tape recording, and transcribing, and because we did not know exactly which aspects of children's cumulative experience were contributing to establishing rates of vocabulary growth, the more information we could get each time we were in the home the more we could potentially learn.

We decided to start when the children were 7-9 months old so we would have time for the families to adapt to observation before the children actually began talking. We followed the children until they turned three years old.

The first families we recruited to participate in the study came from personal contacts: friends who had babies and families who had had children in the Turner House Preschool. We then used birth announcements to send descriptions of the study to families with children of the desired age. In recruiting from birth announcements, we had two priorities. The first priority was to obtain a range in demographics, and the second was stability--we needed families likely to remain in the longitudinal study for several years. Recruiting from birth announcements allowed us to preselect families. We looked up each potential family in the city directory and listed those with such signs of permanence as owning their home and having a telephone. We listed families by sex of child and address because demographic status could be reliably associated with area of residence in this city at that time. Then we sent recruiting letters selectively in order to maintain the gender balance and the representation of socioeconomic strata.

Our final sample consisted of 42 families who remained in the study from beginning to end. >From each of these families, we have almost 2 1/2 years or more of sequential monthly hour-long observations. On the basis of occupation, 13 of the families were upper socioeconomic status (SES), 10 were middle SES, 13 were lower SES, and six were on welfare. There were African-American families in each SES category, in numbers roughly reflecting local job allocations. One African-American family was upper SES, three were middle, seven were lower, and six families were on welfare. Of the 42 children, 17 were African American and 23 were girls. Eleven children were the first born to the family, 18 were second children, and 13 were third or later-born children.

What We Found

Before children can take charge of their own experience and begin to spend time with peers in social groups outside the home, almost everything they learn comes from their families, to whom society has assigned the task of socializing children. We were not surprised to see the 42 children turn out to be like their parents; we had not fully realized, however, the implications of those similarities for the children's futures. We observed the 42 children grow more like their parents in stature and activity levels, in vocabulary resources, and in language and interaction styles. Despite the considerable range in vocabulary size among the children, 86 percent to 98 percent of the words recorded in each child's vocabulary consisted of words also recorded in their parents' vocabularies. By the age of 34-36 months, the children were also talking and

using numbers of different words very similar to the averages of their parents (see the table below).

Families' Language and Use Differ Across Income Groups Families							
Measures & Scores	Parent	Child	Parent	Child	Parent	Child	
Protest score ^a	41		31		14		
Recorded vocabulary size	2,176	1,116	1,498	749	974	525	
Average utterances per hour ^b	487	310	301	223	176	168	
Average different words per hour	382	297	251	216	167	149	

^a When we began the longitudinal study, we asked the parents to complete a vocabulary pretest. At the first observation each parent was asked to complete a form abstracted from the Peabody Picture Vocabulary Test (PPVT). We gave each parent a list of 46 vocabulary words and a series of pictures (four options per vocabulary word) and asked the parent to write beside each word the number of the picture that corresponded to the written word. Parent performance on the test was highly correlated with years of education (r = .57).

Parent utterances and different words were averaged over 13-36 months of child age. Child utterances and different words were averaged for the four observations when the children were 33-36 months old.

By the time the children were 3 years old, trends in amount of talk, vocabulary growth, and style of interaction were well established and clearly suggested widening gaps to come. Even patterns of parenting were already observable among the children. When we listened to the children, we seemed to hear their parents speaking; when we watched the children play at parenting their dolls, we seemed to see the futures of their own children.

We now had answers to our 20-year-old questions. We had observed, recorded, and analyzed more than 1,300 hours of casual interactions between parents and their language-learning children. We had dissembled these interactions into several dozen molecular features that could be reliably coded and counted. We had examined the correlations between the quantities of each of those features and several outcome measures relating to children's language accomplishments.

After all 1,318 observations had been entered into the computer and checked for accuracy against the raw data, after every word had been checked for spelling and coded and checked for its part of speech, after every utterance had been coded for syntax and discourse function and every code checked for accuracy, after random samples had been recoded to check the reliability of the coding, after each file had been checked one more time and the accuracy of each aspect verified, and after the data analysis programs had finally been run to produce frequency counts and dictionary lists for each observation, we had an immense numeric database that

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required 23 million bytes of computer file space. We were finally ready to begin asking what it all meant.

It took six years of painstaking effort before we saw the first results of the longitudinal research. And then we were astonished at the differences the data revealed (see the graph at left).

Like the children in the Turner House Preschool, the three year old children from families on welfare not only had smaller vocabularies than did children of the same age in professional families, but they were also adding words more slowly. Projecting the developmental trajectory of the welfare children's vocabulary growth curves, we could see an ever-widening gap similar to the one we saw between the Turner House children and the professors' children in 1967.

While we were immersed in collecting and processing the data, our thoughts were concerned only with the next utterance to be transcribed or coded. While we were observing in the homes, though we were aware that the families were very different in lifestyles, they were all similarly engaged in the fundamental task of raising a child. All the families nurtured their children and played and talked with them. They all disciplined their children and taught them good manners and how to dress and toilet themselves. They provided their children with much the same toys and talked to them about much the same things. Though different in personality and skill levels, the children all learned to talk and to be socially appropriate members of the family with all the basic skills needed for preschool entry.

Test Performance in Third Grade Follows Accomplishments at Age 3

We wondered whether the differences we saw at age 3 would be washed out, like the effects of a preschool intervention, as the children's experience broadened to a wider community of competent speakers. Like the parents we observed, we wondered how much difference children's early experiences would actually make. Could we, or parents, predict how a child would do in school from what the parent was doing when the child was 2 years old?

Fortune provided us with Dale Walker, who recruited 29 of the 42 families to participate in a study of their children's school performance in the third grade, when the children were nine to 10 years old.

We were awestruck at how well our measures of accomplishments at age 3 predicted measures of language skill at age 9-10. From our preschool data we had been confident that the rate of vocabulary growth would predict later performance in school; we saw that it did. For the 29 children observed when they were 1-2 years old, the rate of vocabulary growth at age 3 was strongly associated with scores at age 9-10 on both the Peabody Picture Vocabulary Test-Revised (PPVT-R) of receptive vocabulary (r = .58) and the Test of Language Development-2: Intermediate (TOLD) (r = .74) and its subtests (listening, speaking, semantics, syntax).

Vocabulary use at age 3 was equally predictive of measures of language skill at age 9-10. Vocabulary use at age 3 was strongly associated with scores on both the PPVT-R (r = .57) and the TOLD (r = .72). Vocabulary use at age 3 was also strongly associated with reading comprehension scores on the Comprehensive Test of Basic Skills (CTBS/U), (r = .56).

The 30 Million Word Gap By Age 3

All parent-child research is based on the assumption that the data (laboratory or field) reflect what people typically do. In most studies, there are as many reasons that the averages would be higher than reported as there are that they would be lower. But all researchers caution against extrapolating their findings to people and circumstances they did not include. Our data provide us, however, a first approximation to the absolute magnitude of children's early experience, a basis sufficient for estimating the actual size of the intervention task needed to provide equal experience and, thus, equal opportunities to children living in poverty. We depend on future studies to refine this estimate.

Because the goal of an intervention would be to equalize children's early experience, we need to estimate the amount of experience children of different SES groups might bring to an intervention that began in preschool at age 4. We base our estimate on the remarkable differences our data showed in the relative amounts of children's early experience: Simply in words heard, the average child on welfare was having half as much experience per hour (616 words per hour) as the average working-class child (1,251 words per hour) and less than one-third that of the average child in a professional family (2,153 words per hour). These relative differences in amount of experience were so durable over the more than two years of observations that they provide the best basis we currently have for estimating children's actual life experience.

A linear extrapolation from the averages in the observational data to a 100-hour week (given a 14-hour waking day) shows the average child in the professional families with 215,000 words of language experience, the average child in a working-class family provided with 125,000 words, and the average child in a welfare family with 62,000 words of language experience. In a 5,200-hour year, the amount would be 11.2 million words for a child in a professional family, 6.5 million words for a child in a working-class family, and 3.2 million words for a child in a welfare family. In four years of such experience, an average child in a professional family would have accumulated experience with almost 45 million words, an average child in a working-class family would have accumulated experience with 26 million words, and an average child in a welfare family would have accumulated experience with 13 million words. By age 4, the average child in a welfare family might have 13 million fewer words of cumulative experience than the average child in a working-class family. This linear extrapolation is shown in the graph below.

But the children's language experience did not differ just in terms of the number and quality of words heard. We can extrapolate similarly the relative differences the data showed in children's hourly experience with parent affirmatives (encouraging words) and prohibitions. The average child in a professional family was accumulating 32 affirmatives and five prohibitions per hour, a ratio of 6 encouragements to 1 discouragement. The average child in a working-class family was accumulating 12 affirmatives and seven prohibitions per hour, a ratio of 2 encouragements to 1 discouragement. The average child in a welfare family, though, was accumulating five affirmatives and 11 prohibitions per hour, a ratio of 1 encouragement to 2 discouragements. In a 5,200-hour year, that would be 166,000 encouragements to 26,000 discouragements in a professional family, 62,000 encouragements to 36,000 discouragements in a working-class family, and 26,000 encouragements to 57,000 discouragements in a welfare family.

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Extrapolated to the first four years of life, the average child in a professional family would have accumulated 560,000 more instances of encouraging feedback than discouraging feedback, and an average child in a working-class family would have accumulated 100,000 more encouragements than discouragements. But an average child in a welfare family would have accumulated 125,000 more instances of prohibitions than encouragements. By the age of 4, the average child in a welfare family might have had 144,000 *fewer* encouragements and 84,000 *more* discouragements of his or her behavior than the average child in a working-class family.

Extrapolating the relative differences in children's hourly experience allows us to estimate children's cumulative experience in the first four years of life and so glimpse the size of the problem facing intervention. Whatever the inaccuracy of our estimates, it is not by an order of magnitude such that 60,000 words becomes 6,000 or 600,000. Even if our estimates of children's experience are too high by half, the differences between children by age 4 in amounts of cumulative experience are so great that even the best of intervention programs could only hope to keep the children in families on welfare from falling still further behind the children in the working-class families.

The Importance of Early Years Experience

We learned from the longitudinal data that the problem of skill differences among children at the time of school entry is bigger, more intractable, and more important than we had thought. So much is happening to children during their first three years at home, at a time when they are especially malleable and uniquely dependent on the family for virtually all their experience, that by age 3, an intervention must address not just a lack of knowledge or skill, but an entire general approach to experience.

Cognitively, experience is sequential: Experiences in infancy establish habits of seeking, noticing, and incorporating new and more complex experiences, as well as schemas for categorizing and thinking about experiences. Neurologically, infancy is a critical period because cortical development is influenced by the amount of central nervous system activity stimulated by experience. Behaviorally, infancy is a unique time of helplessness when nearly all of children's experience is mediated by adults in one-to-one interactions permeated with affect. Once children become independent and can speak for themselves, they gain access to more opportunities for experience. But the amount and diversity of children's past experience influences which new opportunities for experience they notice and choose.

Estimating, as we did, the magnitude of the differences in children's cumulative experience before the age of 3 gives an indication of how big the problem is. Estimating the hours of intervention needed to equalize children's early experience makes clear the enormity of the effort that would be required to change children's lives. And the longer the effort is put off, the less possible the change becomes. We see why our brief, intense efforts during the War on Poverty did not succeed. But we also see the risk to our nation and its children that makes intervention more urgent than ever.

Betty Hart is professor of Human Development at the University of Kansas and senior scientist at the Schiefelbusch Institute for Life Span Studies. Todd R. Risley is professor in the Department of Psychology at the University of Alaska Anchorage and director of Alaska's Autism Intensive Early Intervention Project. The two have collaborated on research projects for more then 35 years. This article is excerpted with permission from *Meaningful Differences in the Everyday Experiences of Young American Children*, Copyright 1995, Brookes; http://www.brookespublishing.com/, 1-800-638-3775; \$29.00.

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The Number of Words Heard at Home in an Hour by 1- and 2-Year-Olds Learning to Talk

2,153	Average child in a professional family		
1,251	Average child in a working class family		
616	Average child receiving federal/state welfare benefits		

Source: Hart, B., and T. Risley. <u>Meaningful differences in the everyday experience of young American children.</u> Brookes Publishing, 1995.

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Sandra Stone Cartoon

